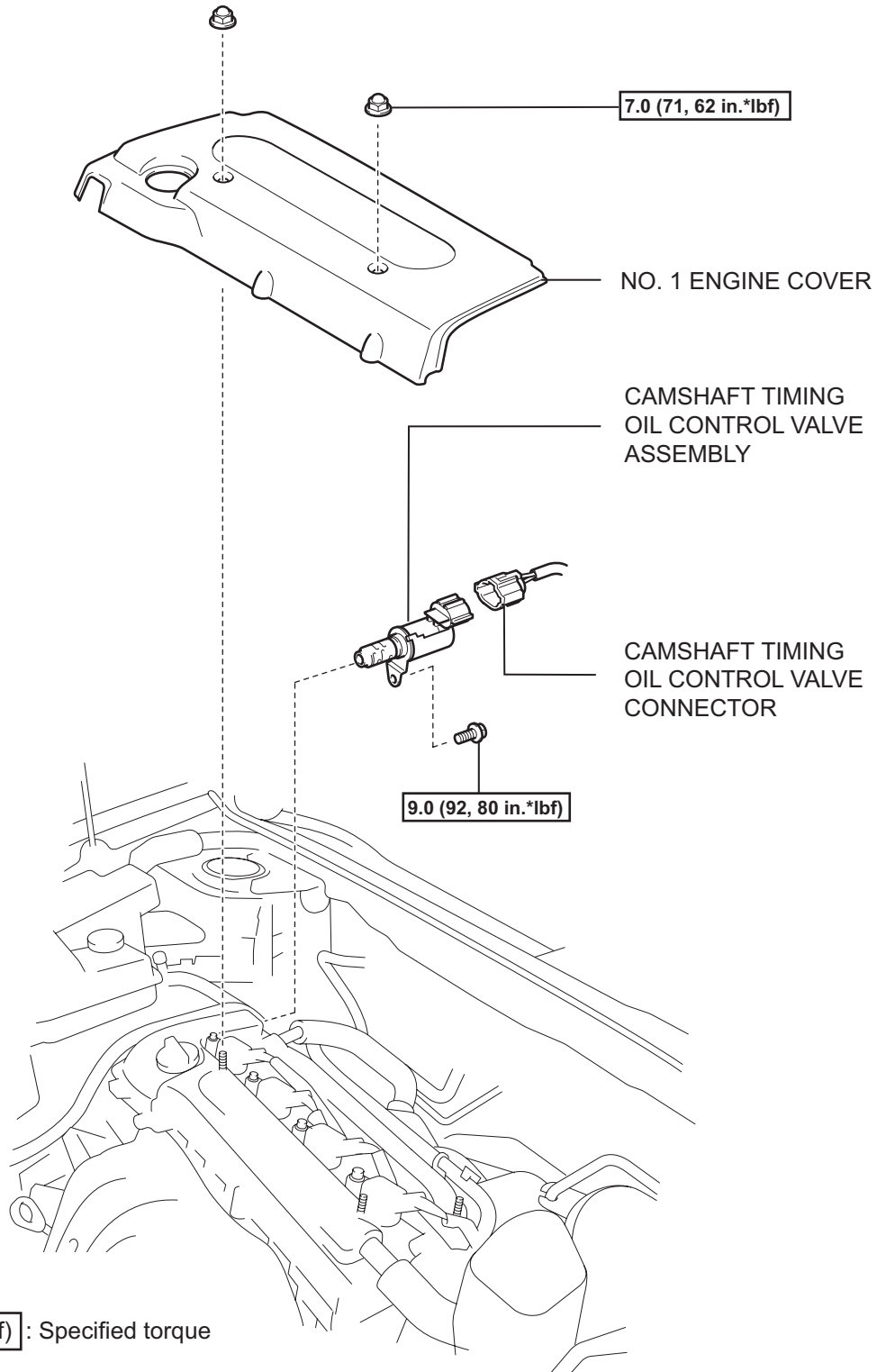
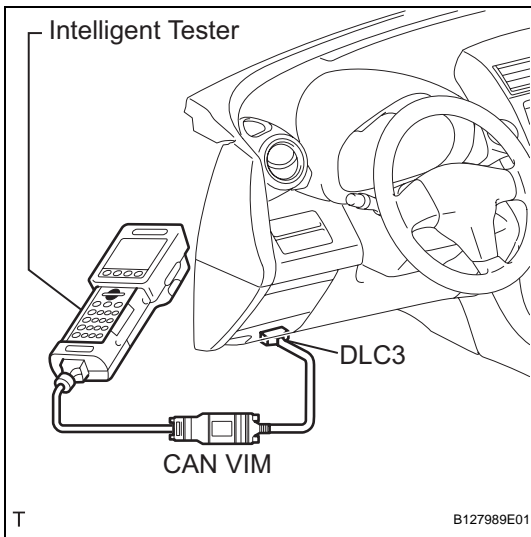


# CAMSHAFT TIMING OIL CONTROL VALVE ASSEMBLY COMPONENTS

ES





## ON-VEHICLE INSPECTION

### 1. CHECK CAMSHAFT TIMING OIL CONTROL VALVE ASSEMBLY

- (a) Check the operation.
- (1) Connect the intelligent tester to the DLC3.
  - (2) Turn the ignition switch ON.
  - (3) Turn the intelligent tester main switch ON.
  - (4) Start and warm up the engine.
  - (5) Select the menu items: DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / VVT CTRL B1.
  - (6) Operate the OCV using the intelligent tester, and then check the engine speed.

#### Standard condition

Tester Operation	Specified Condition
OCV is OFF	Normal engine speed
OCV is ON	Rough idling or engine stalls

If the operation is not as specified, check the oil control valve, wire harness and ECM.

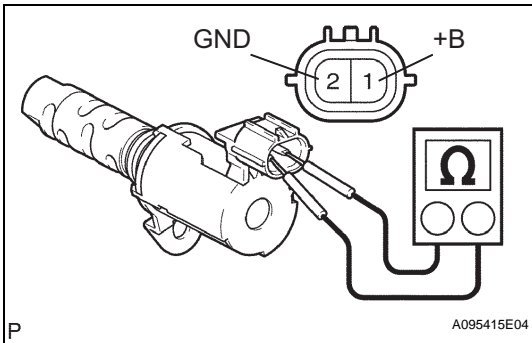
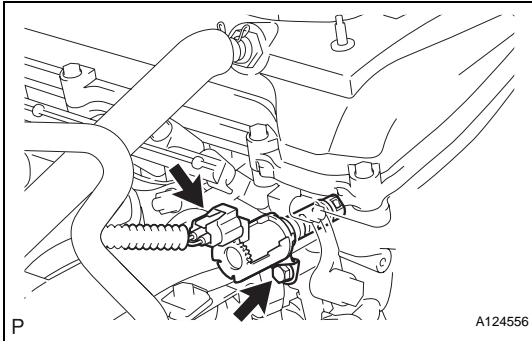
## REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

### CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.

2. REMOVE NO. 1 ENGINE COVER (See page ES-410)
3. REMOVE CAMSHAFT TIMING OIL CONTROL VALVE ASSEMBLY
  - (a) Disconnect the oil control valve connector.
  - (b) Remove the bolt and oil control valve.



## INSPECTION

1. INSPECT CAMSHAFT TIMING OIL CONTROL VALVE ASSEMBLY

- (a) Measure the resistance of the oil control valve.

### Standard resistance

Tester Connection	Specified Condition
1 (+B) - 2 (GND)	6.9 to 7.9 $\Omega$ at 20°C (68°F)

If the result is not as specified, replace the oil control valve assembly.

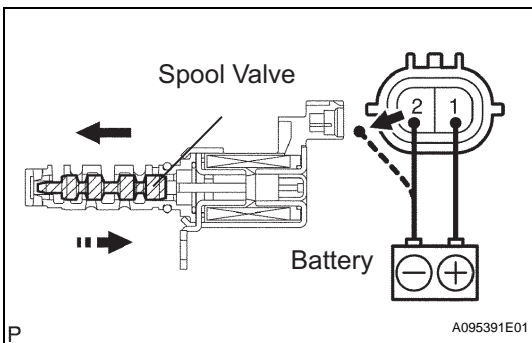
- (b) Check the operation.
  - (1) Apply battery voltage across the terminals and check that the spool valve operates.

### NOTICE:

**Check that the spool valve is not stuck.**

### HINT:

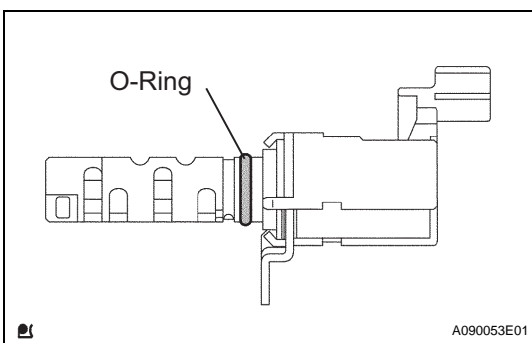
The spool valve may not return if foreign objects are caught in it. This may cause subtle pressure leaks to the advance side, and a DTC may be set.

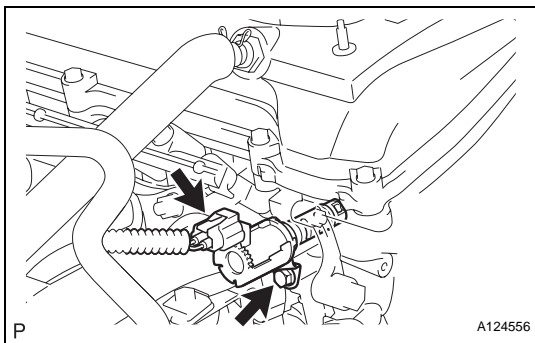


## INSTALLATION

1. INSTALL CAMSHAFT TIMING OIL CONTROL VALVE ASSEMBLY

- (a) Apply a light coat of engine oil to the O-ring of the oil control valve.





- (b) Install the oil control valve with the bolt.  
**Torque: 9.0 N\*m (92 kgf\*cm, 80 in.\*lbf)**

**NOTICE:**

**Make sure that the O-ring is not cracked or jammed.**

- (c) Connect the oil control valve connector.

**2. CONNECT CABLE TO NEGATIVE BATTERY  
TERMINAL**

**3. CHECK FOR ENGINE OIL LEAKS**

- (a) Start the engine, and check that there are no oil leaks.

**4. INSTALL NO. 1 ENGINE COVER (See page [ES-414](#))**